



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2013-0340; Directorate Identifier 2010-SW-081-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Eurocopter Deutschland GmbH Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for Eurocopter Deutschland GmbH (Eurocopter) Model EC135 P1, EC135 P2, EC135 P2+, EC135 T1, EC135 T2, EC135 T2+, and MBB-BK 117 C-2 helicopters with a certain external mounted hoist system (hoist) with boom support assembly (boom) installed. This proposed AD would require inspecting the boom for a crack and, if a crack exists, replacing the boom with an airworthy boom. This proposed AD is prompted by cracks found on the boom during a pre-flight check of a hoist on an MBB-BK 117 C-2 helicopter. The proposed actions are intended to detect a crack and prevent failure of the boom, loss of the boom and attached loads, and subsequent loss of helicopter control.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- **Federal eRulemaking Docket:** Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.
- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.
- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>, and contact the Goodrich Corporation, 2727 East Imperial Highway, Brea, CA 92821; telephone (714) 984-1461; fax 714-984-1675, or at [www.goodrich.com](http://www.goodrich.com). You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

**FOR FURTHER INFORMATION CONTACT:** Matt Wilbanks, Aviation Safety Engineer, Rotorcraft Certification Office, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email [matt.wilbanks@faa.gov](mailto:matt.wilbanks@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

### **Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2010-0154, dated August 13, 2010, to correct an unsafe condition for Eurocopter Model MBB-BK 117 C-2, EC135, and EC635 series helicopters. EASA AD No. 2010-0154 supersedes EASA AD No. 2009-0093-E, dated April 17, 2009. EASA advises that cracks were detected on the boom, part number (P/N) 44307-500, during a pre-flight check of the hoist on a Model MBB-BK 117 C-2 helicopter. EASA advises that this condition, if not detected and corrected, would impair the structural

strength of the boom and could lead to failure of the boom. EASA advises that this could result in the loss of the boom and attached loads. According to EASA, boom P/Ns 44301-500 and 44307-500-1 are of similar design to P/N 44307-500, and therefore are also subject to this unsafe condition. As a result, EASA issued Emergency AD No. 2009-0093-E to require repetitive visual checks of the affected boom and removal or replacement of the boom when cracks are found.

EASA advises that since AD No. 2009-0093-E was issued, further technical investigation determined that torque values that were too high have been applied. EASA advises that Goodrich Corporation, manufacturer of the affected booms, has developed an inspection that will determine the need for further action. As a result, EASA superseded its AD to include a new inspection to detect damage, by issuing EASA AD No. 2010-0154. The EASA AD states that if no damage is found during this new inspection, that constitutes terminating action.

### **FAA's Determination**

These helicopters have been approved by the aviation authority of Germany and are approved for operation in the United States. Pursuant to our bilateral agreement with Germany, EASA, its technical representative, has notified us of the unsafe condition described in its AD. We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of the same type design.

### **Related Service Information**

Eurocopter has issued Emergency Alert Service Bulletin (EASB) No. EC135-85A-036, Revision 2, dated June 23, 2010, and EASB No. MBB BK117 C-2-85A-024, Revision 1, dated June 23, 2010, which specify a visual check of the boom for cracks, and removing or replacing the boom before the next flight if there is a crack. The EASBs also require compliance with the

visual and dye penetrant inspection procedures specified in Goodrich Corporation Service Bulletin 44307-500-03, Revision 2, dated April 30, 2010. EASA classified these EASBs as mandatory, and issued EASA AD No. 2010-0154, dated August 13, 2010, to ensure the continued airworthiness of these helicopters.

### **Proposed AD Requirements**

This proposed AD would require:

- Before further flight, and thereafter before the first flight of each day until the dye penetrant inspection is performed, visually checking the boom for a crack. A pilot holding at least a private pilot certificate may perform this check and must record his or her compliance in the aircraft's maintenance records in accordance with applicable regulations. A pilot may perform this check because it involves only looking at the boom and can be performed equally well by a pilot or a mechanic. This check is an exception to our standard maintenance regulations.

- Within 30 days, performing a dye penetrant inspection of the boom for a crack.
- If a crack exists in a boom, replacing the cracked boom with an airworthy boom.

### **Differences between this Proposed AD and the EASA AD**

The EASA AD requires you to notify and return parts to the manufacturer, and this proposed AD does not. The EASA AD also applies to the Eurocopter EC635 series military helicopters, while this proposed AD would not because those models are not type certificated in the United States.

### **Costs of Compliance**

We estimate that this proposed AD would affect 350 helicopters of U.S. Registry and a labor rate of \$85 per work-hour. Based on these estimates, we expect the following costs:

- We estimate that the cost of the daily visual check would be minimal.
- We estimate that removing the hoist and boom assembly, performing the dye penetrant inspection, and reinstalling the equipment would require 1.5 work hours. No parts would be needed, for a total cost of about \$128 per helicopter and \$44,800 for the U.S. fleet.
- Replacing the hoist and boom assembly, if needed, would require about a 0.33 work-hour for a labor cost of about \$28. Parts would cost \$10,833 for a total cost of \$10,861 per helicopter.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**EUROCOPTER DEUTSCHLAND GmbH HELICOPTERS:** Docket No. FAA-2013-0340; Directorate Identifier 2010-SW-081-AD.

**(a) Applicability.**

This AD applies to Eurocopter Deutschland GmbH (Eurocopter) Model EC135 P1, EC135 P2, EC135 P2+, EC135 T1, EC135 T2 and EC135 T2+ helicopters with a Goodrich Corporation (Goodrich) external mounted hoist system (hoist) with boom support assembly (boom) Part Number (P/N) 44301-500, 44307-500, or 44307-500-1 installed, and Model MBB-BK 117 C-2 helicopters with a Goodrich hoist with boom P/N 44307-500 installed, certificated in any category.

**(b) Unsafe Condition.**

This AD defines the unsafe condition as a crack in the boom. This condition could result in loss of the boom and attached loads, and subsequent loss of helicopter control.

**(c) Reserved.**

**(d) Compliance.**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions.**

(1) Before further flight, and thereafter before the first flight of each day until you have performed the inspection required by paragraph (e)(2) of this AD, clean the hoist and visually check for a crack, paying particular attention to the areas that are circled as depicted in Figure 1 to paragraph (e) of this AD. The actions required by this paragraph may be performed by the owner/operator (pilot) holding at least a private pilot certificate, and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR §§ 43.9 (a)(1)-(4) and 14 CFR § 91.417 (a)(2)(v). The record must be maintained as required by 14 CFR § 91.417, 121.380, or 135.439.



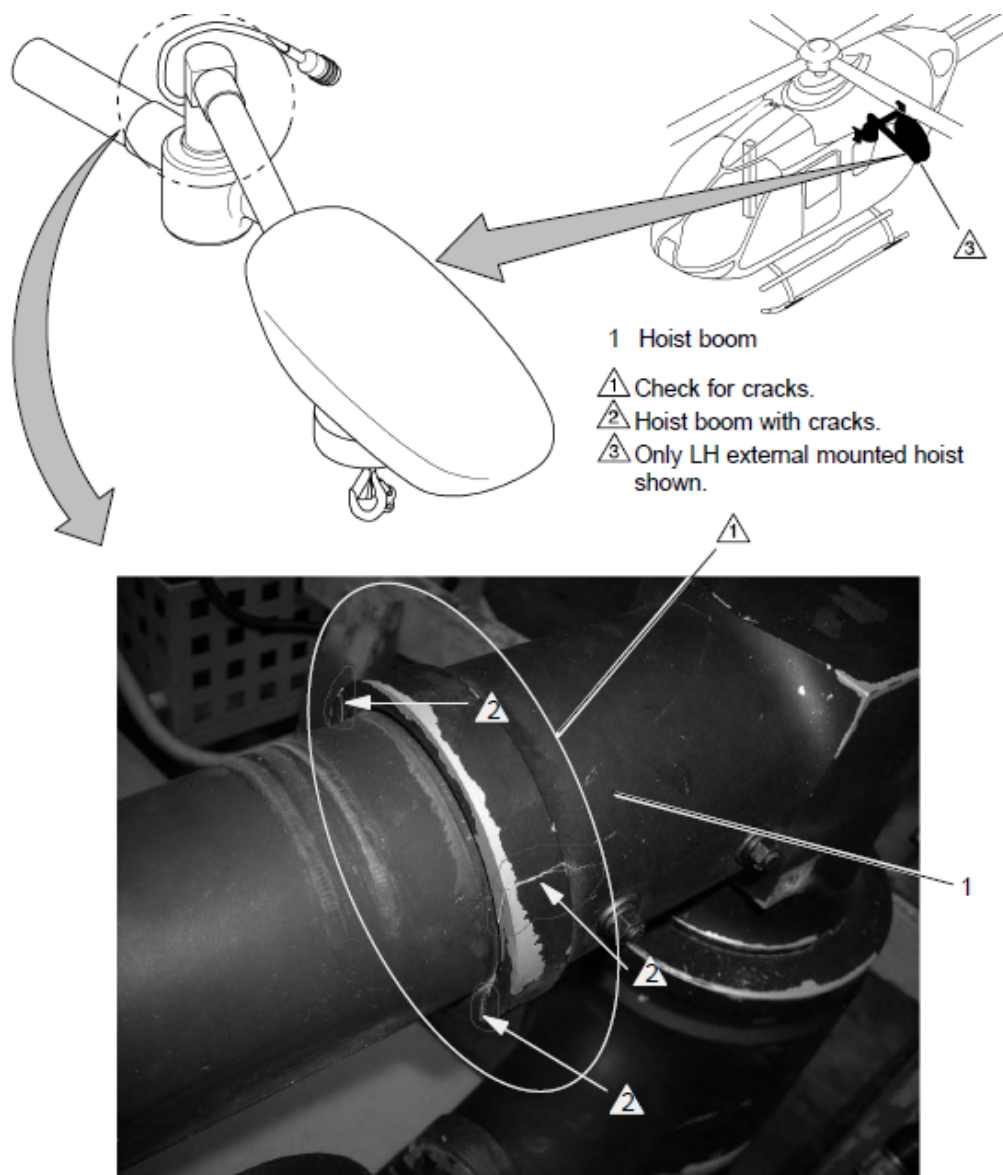


Figure 1 to Paragraph (e)

(2) Within 30 days, perform a dye penetrant inspection of the boom in accordance with the Accomplishment Instructions, Section 2.D, of the Goodrich Service Bulletin 44307-500-03, Revision 2, dated April 30, 2010 (SB).

Note to paragraph (e)(2): A copy of the SB is included with Eurocopter Emergency Alert Service Bulletin (EASB) No. EC135-85A-036, Revision 2, dated June 23, 2010, and EASB No. MBB BK117 C-2-85A-024, Revision 1, dated June 23, 2010.

(3) If a crack exists in the boom, replace the cracked boom with an airworthy boom before further flight.

**(f) Special flight permit.**

Special flight permits would be allowed provided the hoist is disabled during the ferry flight.

**(g) Alternative Methods of Compliance (AMOCs).**

For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

**(h) Additional Information.**

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2010-0154, dated August 13, 2010, which supersedes EASA AD No. 2009-0093-E, dated April 17, 2009.

**(i) Subject.**

Joint Aircraft Service Component (JASC) Code: 5345, Fuselage, Equipment Attach  
Fittings.

Issued in Fort Worth, Texas, on April 8, 2013.

Kim Smith,

Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

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